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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HOUSTON, TX 77057-2631

EXAMINER
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KUMAR, SRILAKSHMI K

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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01/27/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/836,978	<b>Applicant(s)</b> METZ, WERNER	
	<b>Examiner</b> SRILAKSHMI K. KUMAR	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,5-11,14,17-21,26-28 and 30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5-8,10,11,14,17,18, 20,21,26,27, 28 and 30 is/are rejected.
- 7) ☒ Claim(s) 9 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**Director, Technology Center DETAILED ACTION**

The following office action is in response to the Board of Patent Appeals and Interferences Decision rendered on July 15, 2008. Claims 1, 5-11, 14, 17-21, 26-28 and 30 are pending.

***Board of Patent Appeals and Interferences Decision***

The Board of Patent Appeals and Interferences (BPAI) reviewed the appeal, and has reversed the examiner with respect to the 35 USC 103 rejection of Mumford (US 6,377,249) in view of Wiebe (US 6,689,966).

***Response to Argument***

1. Applicant's arguments, see the BPAI Decision, filed July 15, 2008, with respect to the rejection(s) of claim(s) 1, 5-11, 14, 17-21, 26-28 and 30 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Tanimura (JP 61157930) in view of Mumford (US 6,377,249).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **1, 5-9, 10, 11, 14, 17, 18, 20, 21, 26, 27, 28 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanimura (JP 61157930) in view of Mumford (US 6,377,249).

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As to independent **claim 1**, Tanimura teaches a method comprising; resolving a display into at least two regions (Figs. 3A-C, page 4, second paragraph) ; and generating a different sequence of characteristic values each corresponding to a unique sequence of colors in each of said regions until the position of a sensor with respect to said regions is determined (Figs. 3A-C, and page 4, where the dot indicates the position assigned by the input pen; where the display is split into two portions A and A'. Where each position on the screen has a unique sequence of color inversions that take place until the position is determined. The regions are given either black or white color. It is determined that the dot is in region A'. Then region A' is again split, and continually split and color values assigned until the position of the dot is determined.). Tanimura does not teach using primary colors. Mumford teaches an electronic light pen system where the display uses three primary colors (R, G, B) in the regions (Mumford, abstract, col. 6, lines 8-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include using primary colors of RGB as taught by Mumford into Tanimura as the primary colors for displays are well known and would provide a display with increased marketability to users.

As to dependent **claim 5**, limitations of claim 1, and further including Tanimura teaches generating a different sequence of only two color values (page 4, second paragraph, where the colors, black and white are used).

As to dependent **claim 6**, limitations of claim 1, and further including Tanimura teaches displaying a series of frames and interspersing, among said frames, additional frames having at least two regions each displaying a sequence of characteristic values (page 4, where there are multiple of frames, and divisions of frames for detection).

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As to dependent **claim 7**, limitations of claim 6, and further including Tanimura teaches displaying said additional frames such that they are substantially undetectable by the user (on page 4, where the speed for displaying, dividing and sequencing to determine the location is done at a high speed and on page 7, where there is minimal flickering of the screen teaches the undetectability).

As to dependent **claim 8**, limitations of claim 1, and further including Tanimura teaches generating a sequence of characteristic values by displaying a time sequence of frames each including at least two regions, and each of said regions displaying a timed sequence of characteristic values (taught on pages 4 and 5, where the display is divided into frames and the division of frames are accomplished by time sequence of one after another and at an increased speed).

As to dependent **claim 10**, limitations of claim 1, further including, Tanimura teaches developing a sequence using fewer characteristic values than the number of regions (Fig. 3B, there are three regions, but only two color characteristic values are used, as detailed on page 4).

As to independent **claim 11**, Tanimura teaches an article (Fig. 4) comprising a medium storing instructions (memory, item 6 and RAM, item 11, which are well known to store instructions) that enable a processor (cpu, item 5) based system to; resolving a display into at least two regions (Figs. 3A-C, page 4, second paragraph) ; and generating a different sequence of characteristic values each corresponding to a unique sequence of colors in each of said regions until the position of a sensor with respect to said regions is determined (Figs. 3A-C, and page 4, where the dot indicates the position assigned by the input pen; where the display is split into two portions A and A'. Where each position on the screen has a unique sequence of color inversions

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that take place until the position is determined. The regions are given either black or white color. It is determined that the dot is in region A'. Then region A' is again split, and continually split and color values assigned until the position of the dot is determined). Tanimura does not teach using primary colors. Mumford teaches an electronic light pen system where the display uses three primary colors (R, G, B) in the regions (Mumford, abstract, col. 6, lines 8-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include using primary colors of RGB as taught by Mumford into Tanimura as the primary colors for displays are well known and would provide a display with increased marketability to users.

As to dependent **claim 14**, limitations of claim 11, Tanimura teaches further storing instructions that enable the processor based system to generating a different sequence of only two color values (page 4, second paragraph, where the colors, black and white are used, page 5 and 6, teach how the two color values are generated).

As to dependent **claim 17**, limitations of claim 11, Tanimura teaches further storing instructions that enable the processor based system to cause a series of frames and interspersing, among said frames, additional frames having at least two regions each displaying a sequence of characteristic values (page 4, where there are multiple of frames, and divisions of frames for detection).

As to dependent **claim 18**, limitations of claim 11, Tanimura teaches further storing instructions that enable the processor based system to generate the difference sequence of characteristic values by displaying a time sequence of frames each including at least two regions, and each of said regions displaying a time sequence of characteristic values ((taught on pages 4

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and 5, where the display is divided into frames, and the division of frames are accomplished by time sequence of one after another and at an increased speed).

As to independent **claim 20**, Tanimura teaches a system comprising a processor (Fig. 4, item 5, cpu); a memory (Fig. 4, items 6, memory and 11, RAM) coupled to said processor, said memory (memory, item 6 and RAM, item 11, well known to store instructions) storing instructions that enable the system to resolve a display into at least two regions (Figs. 3A-C, page 4, second paragraph) ; and generate a different sequence of characteristic values each corresponding to a unique sequence of primary colors in each of said regions until the position of a sensor with respect to said regions is determined (Figs. 3A-C, and page 4, where the dot indicates the position assigned by the input pen; where the display is split into two portions A and A'. Where each position on the screen has a unique sequence of color inversions that take place until the position is determined. The regions are given either black or white color. It is determined that the dot is in region A'. Then region A' is again split, and continually split and color values assigned until the position of the dot is determined). Tanimura does not teach using primary colors. Mumford teaches an electronic light pen system where the display uses three primary colors (R, G, B) in the regions (Mumford, abstract, col. 6, lines 8-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include using primary colors of RGB as taught by Mumford into Tanimura as the primary colors for displays are well known and would provide a display with increased marketability to users.

As to dependent **claim 21**, limitations of claim 20, and further comprising, Tanimura teaches wherein the display is coupled to said processor (Fig. 4, where the display, 7, is coupled to the processor, cpu, 5).

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As to dependent **claim 26**, limitations of claim 20, and further comprising, Tanimura teaches wherein said memory (item 6 and 11, memory and RAM, respectively) stores instructions that enable the system to generate a different sequence of only two color values in each region (page 4, second paragraph, where the colors, black and white are used, page 5 and 6, teach how the two color values are generated).

As to dependent **claim 27**, limitations of claim 20, and further comprising, Tanimura teaches wherein said memory stores instructions that enable the system to cause a series of frames to be displayed while interspersing, among said frames, additional frames having at least two regions each displaying a sequence of characteristic values (page 4, where there are multiple of frames, and divisions of frames for detection).

As to dependent **claim 28**, limitations of claim 20, and further comprising, Tanimura teaches wherein said memory stores instructions that enable the system to generate a different sequence of characteristic values by displaying a time sequence of frames each including at least two regions, and each of said regions displaying a time sequence of characteristic values (taught on pages 4 and 5, where the display is divided into frames and the division of frames are accomplished by time sequence of one after another and at an increased speed).

As to dependent **claim 30**, limitations of claim 20, and further comprising, Tanimura teaches wherein said sensor is a light sensor that detects a characteristic value in the form of light (Pages 5-6, where the sensor senses the black and white light of the regions).



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***Allowable Subject Matter***

4. Claims **9 and 19** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claims 9 and 19, the prior art of record do not teach interspersing frames containing said characteristic values and frames not containing said characteristic values.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SRILAKSHMI K. KUMAR whose telephone number is (571)272-7769. The examiner can normally be reached on 7:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sue Lefkowitz can be reached on 571 272 3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Srilakshmi K Kumar/

Examiner

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SKK

January 5, 2009

/Marian C. Knode/

Director, Technology Center